

**ABSTRACT****MEMORY INTERFACE**

5 A memory controller can perform prefetching, in a way which increases the efficiency  
with which data can be read from an external memory. More specifically, the memory  
controller operates such that it performs prefetching only under certain conditions,  
which are chosen such that there is a high probability that the data requested in the  
prefetching operation will be the data which is next required. The memory controller  
may be implemented in a programmable logic device (PLD), and be optimized for  
10 retrieving data from an external flash or SRAM memory device, which is used for  
storing configuration data for the PLD. By examining a read request, it is possible to  
determine whether a prefetching operation can be performed, with a high probability  
that it will be the required data which is prefetched.